

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-113. (Canceled)

114. (Currently Amended) A blend comprising a first PHA and a second PHA,

wherein:

the first PHA is a copolymer consisting of a comonomer I-A and a comonomer I-B; [[and]]

the second PHA is a copolymer consisting of a comonomer 2-A and a comonomer 2-B;

the first PHA copolymer and the second PHA copolymer are the same copolymer, in which the ratio of comonomer I-A:comonomer I-B in the first PHA is different from the ratio of comonomer 2-A:comonomer 2-B in the second PHA;

comonomer I-A and comonomer 2-A are both 3-hydroxybutyrate; and
the first PHA and the second PHA are miscible.

115. (Canceled)

116. (Currently Amended) The blend of Claim 114[[115]], wherein comonomer I-B and

comonomer 2-B both are 3-hydroxypropionate, 4-hydroxybutyrate, 3-hydroxyhexanoate, or 3-hydroxyoctanoate, 3-hydroxypropionate, 6-hydroxyhexanoate, 3-hydroxydecanoate, 3-hydroxydodecanoate, or 3-hydroxydodecenoate.

117. (Previously Presented) The blend of Claim 116, wherein comonomer I-B and comonomer 2-B both are 4-hydroxybutyrate.

118. (Previously Presented) The blend of Claim 114 additionally comprising a third PHA.

119. (Previously Presented) The blend of Claim 114, wherein when the first PHA and the second PHA are blended and the blend is molded, the blend has a deformation angle tolerance of at least about 5°.
120. (Previously Presented) The blend of Claim 114, wherein when the first PHA and the second PHA are blended and the blend is molded, the blend has a thermal deformation resistance temperature of at least 80°C.
121. (Previously Presented) The blend of Claim 114, wherein the first PHA has a first glass transition temperature and the second PHA has a second glass transition, wherein the difference between the first and second glass transition temperature is at least about 1°C.
122. (Currently Amended) An article comprising at least about 1 percent by weight of ~~the PHA blend of Claim 114~~ a PHA blend comprising a first PHA and a second PHA,
wherein:
the first PHA is a copolymer consisting of a comonomer I-A and a
comonomer I-B;
the second PHA is a copolymer consisting of a comonomer 2-A and a
comonomer 2-B;
the first PHA copolymer and the second PHA copolymer are the same
copolymer, in which the ratio of comonomer I-A:comonomer I-B
in the first PHA is different from the ratio of comonomer
2-A:comonomer 2-B in the second PHA;
comonomer I-A and comonomer 2-A are both 3-hydroxybutyrate; and
the first PHA and the second PHA are miscible.
123. (Withdrawn – Currently Amended) A method of preparing ~~a~~[[the]] PHA blend ~~of Claim 114~~ comprising blending ~~a~~[[the]] first PHA with ~~a~~[[the]] second PHA; wherein:
the first PHA is a copolymer consisting of a comonomer I-A and a comonomer
I-B;

the second PHA is a copolymer consisting of a comonomer 2-A and a comonomer 2-B;

the first PHA copolymer and the second PHA copolymer are the same copolymer, in which the ratio of comonomer I-A:comonomer I-B in the first PHA is different from the ratio of comonomer 2-A:comonomer 2-B in the second PHA;

comonomer I-A and comonomer 2-A are both 3-hydroxybutyrate; and the first PHA and the second PHA are miscible.

124. (Withdrawn) The method of Claim 123, wherein the blending is by solvent blending, emulsion blending or melt blending.

125. (Withdrawn) The method of Claim 123, wherein the blending is by solvent blending.

126. (Withdrawn) The method of Claim 125, wherein the solvent blending comprises:

- (i) dissolving the first PHA and the second PHA in a solvent or solvent mixture; or dissolving the first PHA and the second PHA separately in a solvent or solvent mixture and combining; to form a blended PHA solution containing at most about 50 weight percent of the first PHA and the second PHA;
- (ii) applying the PHA solution to a surface to form a PHA blend solution layer on the surface; and
- (iii) removing some or all of the solvent to form a PHA blend layer on the surface.

127. (Withdrawn-Currently Amended) A method of making ~~an~~[[the]] article ~~of Claim 122~~ comprising:

molding a[[the]] PHA blend prepared by a method comprising:

blending a first PHA with a second PHA comprising:

- (i) dissolving the first PHA and the second PHA in a solvent or solvent mixture; or dissolving the first PHA and the second PHA separately in a solvent or solvent mixture; and

combining to form a blended PHA solution containing at most about 50 weight percent of the first PHA and the second PHA;

(ii) applying the PHA solution to a surface to form a PHA blend solution layer on the surface; and

(iii) removing some or all of the solvent to form a PHA blend layer on the surface;

wherein:

the first PHA is a copolymer consisting of a comonomer I-A and a comonomer I-B;

the second PHA is a copolymer consisting of a comonomer 2-A and a comonomer 2-B;

the first PHA copolymer and the second PHA copolymer are the same copolymer, in which the ratio of comonomer I-A:comonomer I-B in the first PHA is different from the ratio of comonomer 2-A:comonomer 2-B in the second PHA;

comonomer I-A and comonomer 2-A are both 3-hydroxybutyrate; and the first PHA and the second PHA are miscible.

128. (Currently Amended) A blend comprising a first PHA and a second PHA, wherein:

the first PHA is a poly(3-hydroxybutyrate) homopolymer; [[and]]

the second PHA is a copolymer having a first and a second comonomer;[[,]]

~~wherein~~ the first co-monomer is 3-hydroxybutyrate; [[and]]

the second comonomer is 4-hydroxybutyrate; and

the first PHA and the second PHA are miscible ~~or partially miscible~~.

129. (Previously Presented) The blend of Claim 128, wherein the copolymer has at most about 3 weight percent, or at most about 15 weight percent of one comonomer.

130. (Previously Presented) The blend of Claim 128, wherein the blend comprises poly 3-hydroxybutyrate blended with poly 3-hydroxybutyrate-co-11 wt%-4-hydroxybutyrate; or poly 3-hydroxybutyrate blended with poly 3-hydroxybutyrate-co-33 wt%-4-hydroxybutyrate.
131. (Previously Presented) The blend of Claim 130, wherein the blend comprises at most about 20 wt% poly 3-hydroxybutyrate.
132. (Previously Presented) The blend of Claim 130, wherein the blend comprises at most about 60 wt% poly 3-hydroxybutyrate.
133. (Previously Presented) The blend of Claim 128 additionally comprising a third PHA.
134. (Previously Presented) The blend of Claim 128, wherein when the first PHA and the second PHA are blended and the blend is molded, the blend has a deformation angle tolerance of at least about 5°.
135. (Previously Presented) The blend of Claim 128, wherein the first PHA and the second PHA are blended and the blend is molded, the blend has a thermal deformation resistance temperature of at least 80°C.
136. (Currently Amended) An article comprising at least about 1 percent by weight of ~~the PHA blend of Claim 128~~ a PHA blend comprising a first PHA and a second PHA, wherein:
the first PHA is a poly(3-hydroxybutyrate) homopolymer;
the second PHA is a copolymer having a first and a second comonomer;
wherein the first co-monomer is 3-hydroxybutyrate and the second
co-monomer is 4-hydroxybutyrate; and
the first PHA and the second PHA are miscible.
137. (Withdrawn – Currently Amended) A method of preparing ~~a~~ a ~~the~~ PHA blend ~~of Claim 128~~, comprising blending ~~a~~ a ~~the~~ first PHA with ~~a~~ a ~~the~~ second PHA wherein:

the PHA blend comprises the first PHA and the second PHA;
the first PHA is a poly(3-hydroxybutyrate) homopolymer;
the second PHA is a copolymer having a first and a second comonomer;
wherein the first co-monomer is 3-hydroxybutyrate and the second
comonomer is 4-hydroxybutyrate; and
the first PHA and the second PHA are miscible

138. (Withdrawn-Currently Amended) The method of Claim 137, wherein the blending of the first PHS, and the second PHA[[s]] is by solvent blending, emulsion blending or melt blending.

139. (Withdrawn) The method of Claim 137, wherein the blending is by solvent blending.

140. (Withdrawn) The method of Claim 137, wherein the blending comprises:

- (i) dissolving the first PHA and the second PHA in a solvent or solvent mixture; or dissolving the first PHA and the second PHA separately in a solvent or solvent mixture; and combining to form a blended PHA solution containing at most about 50 weight percent of the first PHA and the second PHA;
- (ii) applying the PHA solution to a surface to form a PHA blend solution layer on the surface; and
- (iii) removing some or all of the solvent to form a PHA blend layer on the surface.

141. (Withdrawn-Currently Amended) A method of making an [[the]] article ~~of Claim 140~~ comprising:

molding a[[the]] PHA blend prepared by a method comprising:

blending a first PHA with a second PHA comprising:

- (i) dissolving the first PHA and the second PHA in a solvent or solvent mixture; or dissolving the first PHA and the second PHA separately in a solvent or solvent mixture; and combining to form a blended PHA solution containing at

most about 50 weight percent of the first PHA and the second PHA;

(ii) applying the PHA solution to a surface to form a PHA blend solution layer on the surface; and

(iii) removing some or all of the solvent to form a PHA blend layer on the surface;

wherein:

the PHA blend comprises the first PHA and the second PHA;

the first PHA is a poly(3-hydroxybutyrate) homopolymer;

the second PHA is a copolymer having a first and a second comonomer;

wherein the first co-monomer is 3-hydroxybutyrate and the second

comonomer is 4-hydroxybutyrate; and

the first PHA and the second PHA are miscible.

142-143. (Canceled)